

# 2000 AFMC MEDIA CONTEST RESULTS



Cover stories

## From Russia with love

Baby Hannah  
has proven  
to be a  
"dream come  
true"



<b>INTRODUCTION .....</b>	<b>4</b>
<b>CONTEST ENTRY BREAKDOWN .....</b>	<b>5</b>
<b>CATEGORY A -- MILITARY FUNDED NEWSPAPER (LARGE).....</b>	<b>5</b>
<b>CATEGORY B -- MILITARY FUNDED NEWSPAPER (SMALL) .....</b>	<b>5</b>
FIRST PLACE: MCCLELLAN SPACEMAKER, MCCLELLAN AFB, CALIF.....	5
<b>CATEGORY C -- MILITARY FUNDED NEWSPAPER (MAGAZINE FORMAT) .....</b>	<b>6</b>
FIRST PLACE: <a href="#">LEADING EDGE</a> , WRIGHT-PATTERSON AFB, OHIO .....	6
<b>CATEGORY E -- CIVILIAN ENTERPRISE NEWSPAPER (METRO &amp; TABLOID).....</b>	<b>6</b>
FIRST PLACE: <a href="#">SKYWRIGHTER</a> , WRIGHT-PATTERSON AFB, OHIO.....	6
SECOND PLACE: <a href="#">ROBINS REV-UP</a> , ROBINS AFB, GA.....	7
<b>CATEGORY F -- CIVILIAN ENTERPRISE NEWSPAPER (MAGAZINE FORMAT).....</b>	<b>7</b>
<b>CATEGORY G -- NEWS ARTICLE.....</b>	<b>7</b>
FIRST PLACE: 1 <sup>ST</sup> LT. ROBERT FIRMAN, MCCLELLAN AFB, CALIF.....	7
SECOND PLACE: CHRIS ZDRAKAS, ROBINS AFB, GA.....	8
<b>CATEGORY H -- FEATURE ARTICLE.....</b>	<b>8</b>
FIRST PLACE: CHRIS ZDRAKAS, ROBINS AFB, GA .....	8
SECOND PLACE: MASTER SGT. DARRELL LEWIS, TINKER AFB, OKLA.....	9
<b>CATEGORY I -- COMMENTARY.....</b>	<b>10</b>
FIRST PLACE: STEVE VANWERT, BROOKS AFB, TEXAS.....	10
SECOND PLACE: 2 <sup>ND</sup> LT. CRISTINA GENTILE, EGLIN AFB, FLA.....	10
<b>CATEGORY J -- SPORTS ARTICLE .....</b>	<b>11</b>
FIRST PLACE: LOIS WALSH, EGLIN AFB, FLA.....	11
<b>CATEGORY K -- SERIES .....</b>	<b>11</b>
<b>CATEGORY L -- SINGLE OR STAND-ALONE PHOTOGRAPH.....</b>	<b>12</b>
FIRST PLACE: MASTER SGT. TIM HELTON, LOS ANGELES AFB, CALIF.....	12
SECOND PLACE: SANDRA KOSMATIN, MCCLELLAN AFB, CALIF.....	12
<b>CATEGORY M1 -- PHOTOJOURNALISM (PHOTOJOURNALISM) .....</b>	<b>13</b>
FIRST PLACE: SRA. DEAN WITT, EDWARDS AFB, CALIF.....	13
SECOND PLACE: CAPT. VICTORIA KEEGAN, WRIGHT-PATTERSON AFB, OHIO .....	13
<b>CATEGORY M2 -- PHOTOJOURNALISM (PHOTO STORY) .....</b>	<b>14</b>
FIRST PLACE TECH. SGT. CHRISTOPHER BALL, EDWARDS AFB, CALIF.....	14
SECOND PLACE: SRA. MARNEE CARLSON, EGLIN AFB, FLA.....	14
<b>CATEGORY N -- ART/GRAPHICS IN SUPPORT OF A PUBLICATION .....</b>	<b>15</b>
<b>CATEGORY O -- CONTRIBUTION BY CONTRACTOR/STRINGER (WRITER).....</b>	<b>15</b>
FIRST PLACE: MARY GALBRAITH, HILL AFB, UTAH .....	15
SECOND PLACE: KAREN EDGE, KELLY AFB, TEXAS .....	16
<b>CATEGORY P -- CONTRIBUTION BY CONTRACTOR/STRINGER (PHOTOGRAPHER).....</b>	<b>16</b>
FIRST PLACE: SPENCER LANE, WRIGHT-PATTERSON AFB, OHIO .....	16
SECOND PLACE: JOE PICCOROSSO, EGLIN AFB, FLA.....	17
<b>CATEGORY Q -- OUTSTANDING FLAGSHIP PUBLICATION.....</b>	<b>17</b>

<b>CATEGORY R -- WEB-BASED PUBLICATION.....</b>	<b>17</b>
FIRST PLACE: <a href="#">TINKER AFB</a> , OKLA.....	17
SECOND PLACE: <a href="#">KIRTLAND AFB</a> , N.M. & <a href="#">HANSCOM AFB</a> , MASS.....	18
<b>CATEGORY S -- OUTSTANDING NEW WRITER.....</b>	<b>18</b>
FIRST PLACE: AMN. EMILY BUTALI, EGLIN AFB, FLA. ....	18
<b>CATEGORY T -- AIR FORCE PRINT JOURNALIST OF THE YEAR.....</b>	<b>19</b>
FIRST PLACE: SUE BAKER, WRIGHT-PATTERSON AFB, OHIO.....	19
SECOND PLACE: RAY JOHNSON, EDWARDS AFB, CALIF.....	20



## Introduction

Each week, more than 2 million readers across the Air Force -- active duty people, reservists, guardsmen, military families, retired military, civilian DOD employees, and contractors -- turn to base newspapers for news about their community -- the bases where they live and work. AFMC base newspapers provide commanders a primary means of communicating mission-essential information to members of his or her command. The newspaper keeps readers informed about base, local community and military family related issues and operational concerns and provides a direct and documented communication channel for responding to base-wide concerns. News and feature stories on Air Force people and organizations provide recognition of excellence in performance and also improves morale by helping quell rumors and by keeping Air Force people accurately informed about military matters affecting their futures.

To tell the stories readers want and need, AFMC journalists strive to meet the highest standards of professional journalism. The Air Force Materiel Command Media Contest recognizes those military and civilian employee print journalists for outstanding achievements in furthering the internal communication objectives of the Department of the Air Force. Categories of awards include individual and unit, with awards made in 18 print categories.

Judges for this year's AFMC contest were:

**Dr. Annette Taylor:** Annette M. Taylor is an assistant professor at the University of Dayton in Ohio where she teaches journalism and public relations writing, as well as First Amendment law. Before entering the academy in 1988, the Detroit native worked many years as a daily newspaper reporter and editor in Michigan, Montana and Alaska. She also worked as a free-lance writer for publications based in the Pacific Northwest. Her research interests are media law, labor issues and popular culture. She holds a B.A and M.A. in Journalism from Michigan State University and received her Ph.D. in American Culture Studies from Bowling Green State University.

**Mr. Michael Gose:** Mr. Gose is the public affairs division chief and senior journalism instructor for the Public Affairs Officer Course at the Defense Information School, Fort George G. Meade, Md. Mr. Gose is a 24-year Air Force veteran and retired as an Air Force master sergeant. His first assignment was as a staff reporter for Pacific Stars and Stripes in Tokyo. After serving with the Air Force Communications Command at Langley Air Force Base, Va., for two years, he returned to Pacific Stars and Stripes where he served as copyeditor, features writer, columnist, Pacific Desk editor and Magazine editor. Mr. Gose won numerous command and service writing awards, including being named Air Force Journalist of the Year in 1985 and 1987. He holds a bachelor's of science degree in liberal arts from the University of New York and has completed the Short Course in Communications at the University of Oklahoma and the Public Affairs Officer Course at Fort Benjamin Harrison, Ind.

**Ms Janice Morse:** Ms Morse is an award-winning journalist with nearly 16 years' experience at Ohio newspapers. During the past two and a half years with The Cincinnati Enquirer, Ms. Morse has chiefly covered law enforcement. She has received several awards, including a second-place national investigative reporting award and a first-place database/enterprise-reporting award with the Queen City Chapter of the Society of Professional Journalists. Last year, Ms. Morse received the John R. Clark Award for outstanding coverage of local communities, given each year to the Enquirer's most outstanding suburban reporter. Prior to joining the Enquirer, Ms. Morse was a reporter for eight years at the Dayton Daily News. She is a 1986 summa cum laude graduate of Kent State University's School of Journalism.

This document contains anecdotal comments gathered from our judges during the media contest. We tried to capture overall comments for each category and specific comments on each winner. More detailed judges' comments and individual category score sheets will be mailed directly to contest entrants.

If you have any questions or comments, please contact TSgt Carl Norman, AFMC Command Newspaper Consultant, at DSN 787-7630 or me at DSN 787-7620.

V/R



MICHAEL F. KELLY, Major, USAF  
Chief, Internal Communication Division

Contest Entry Breakdown			
Base	# Categories entered	#1st Place	#Runners up
Arnold	4	0	0
Brooks	4	1	0
Edwards	12	2	1
Eglin	11	2	3
Hanscom	10	0	0
Hill	11	1	0
Kelly	5	0	1
Kirtland	2	0	0
Los Angeles	9	1	0
McClellan	7	2	1
Robins	11	1	2
Tinker	6	0	1
Wright-Patterson	10	3	0
Headquarters PA staff	3	1	0
TOTAL ENTRIES	105		

Category A -- Military Funded Newspaper (Large)

First Place:	No entry
Second Place:	No entry

Category B -- Military Funded Newspaper (Small)

First Place:	McClellan Spacemaker, McClellan AFB, Calif. (Primary & Significant Contributors: Robin Jackson; Sandra Kosmatin; Jennifer Vargas; Alica Doyle; James F. Reeves; 1 <sup>st</sup> Lt. Robert Firman)
Second Place:	No entry



First Place: McClellan Spacemaker, McClellan AFB, Calif.

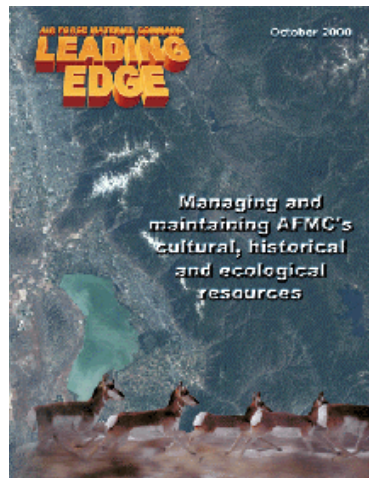
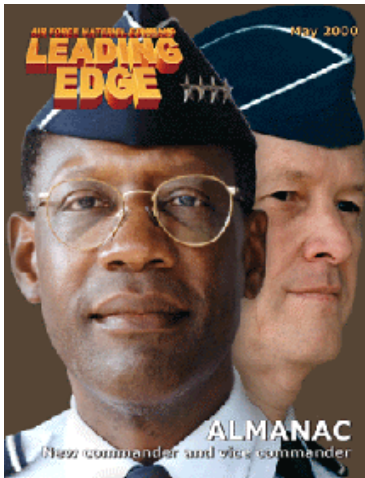
- ☐ **Judge 1:** Writing was a little mundane. Nothing grabbed me. Technically proficient; utilized the space well and stuck with the modular look. No ingenuity. Photos were weakest part. Covered the base well. Did well with the 8 pages you had.
- ☐ **Judge 2:** Leads proficient but not engaging. Add briefs column that includes more family stuff. A major challenge with space means you need to write tighter. Rather see one or two stories that sparkle and briefs for the rest to maximize the space. Shorten up the stories.
- ☐ **Judge 3:** A hodgepodge of type styles that took away from the overall clean look. Made it look less professional. Content good. Lack of space hurt them -- commander involvement was lacking. A solid pub for what they had to work with.

## Category C -- Military Funded Newspaper (Magazine Format)

**First Place: Leading Edge, Wright-Patterson AFB, Ohio**

(Primary & Significant Contributors: Libby Vanhook; Capt. CK Keegan, Maj. Michael Kelly)

**Second Place:** no entry



**First Place: [Leading Edge](#), Wright-Patterson AFB, Ohio**

❑ **Judge 1:** Lack of depth in writing. Seek multiple quotes. Captions on all photos. What are they like as people? What do they do outside of work? Really liked the looks, but be careful with overlays. Catchy headlines are ok. Really like it. Simple improvements can be made...don't lose headlines in graphics...watch overlays and bleeds. Like what they're doing with photos. Almanac issue was great, great photos. Better than Airman's the book. Stories not too long.

❑ **Judge 2:** Great improvement over last year. More judicious on the use of color, didn't overdo it. Be careful

of dark color backgrounds (green & brown). Screens should be no more than 20%. Writing is good. Impressed with what you're doing.

- ❑ **Judge 3:** Print quality is good. Writing; fell in to the trap of falling in love with someone; just because they say something doesn't mean you have to quote it. Add more color to stories. More show, less tell. Blown away by the quality of the look.

## Category E -- Civilian Enterprise Newspaper (Metro & Tabloid)

**First Place: Skywrighter, Wright-Patterson AFB, Ohio**

(Primary Contributors: Will Daniel; Steve Wolfe, SSgt. Stuart Camp; SrA. Celena Leal)

**Second Place: Robins Rev-up, Robins AFB, Ga.**

(Primary & Significant Contributors: Phil Rhodes; Lisa Mathews; Sue Sapp; Hal McKenzie; A1C Eric Smith; Chris Zdrakas)

OVERALL COMMENTS: Publications in general are communicating ok. A sense that there is an attempt at balance of community/issues Vs PR type stuff. Don't get too much from officials. What about the regular folks? Too many one source stories. Need more voices from other people who are involved or effected. No excuse for one source stories anymore. Have the guts to ask questions like..."what's the worst mistake you ever made?" More letters to the editor in base papers.

**First Place: [Skywrighter](#), Wright-Patterson AFB, Ohio**

- ❑ **Judge 1:** Understand production problems, but remember your readers don't care. Look at your contract or increase demands from publisher. Photos were the weakest link. Punch up the headlines in size.
- ❑ **Judge 2:** Work on leads. Sense that you're getting a little lazy. Be a little more creative, not always so straight.
- ❑ **Judge 3:** Sports photos substandard; good photo essay; need subheads to break up large areas of type; get rid of the clip art, very tacky. A yearning for less PR and more news. Serve the readership. Tackle tough issues like DUIs. Choose only the best and paraphrase the rest! Important, unique or opinion only! Who GAC? (Gives a crap).





## Second Place: [Robins Rev-up](#), Robins AFB, Ga.

- ❑ **Judge 1:** Headlines good; reader participation; good departmentalization. Get quotes from people who are effected by your stories.
- ❑ **Judge 2:** Some of the strongest writing of all the issues; good headlines; strongest leads out of all the papers. More per issue. Overall seemed like they were conscientious about choosing quotes. Some attempt to choose interesting quotes. Stronger commander involvement needed.
- ❑ **Judge 3:** Didn't like the nameplate

**Rev-up**  
A Team Within A Team  
Vol. 43 No. 18 Friday, May 12, 2010 Robins Air Force Base, Ga.  
On the defensive  
Expect delays entering Robins during exercise

**In Compliance**  
Haines: UCI ratings 'virtually' down the line in compliance. MSEP gave us a road map of where we need to go.

**Information team averts 'Love Bug' virus damage**  
By Chris Zdrakos  
The Air Force's information team averted a potential 'Love Bug' virus attack on the Robins Air Force Base's network, according to a report from the Air Force's Information Management Center.

## Category F -- Civilian Enterprise Newspaper (Magazine Format)

### First Place: No entries

## Category G -- News Article

First Place: 1<sup>st</sup> Lt. Robert Firman, McClellan AFB, Calif.

Second Place: Chris Zdrakos, Robins AFB, Ga.



### McClellan's last aircraft departs marking end of aviation era

By 2nd Lt. Robert A. Firman  
Public Affairs deputy director

McClellan Air Force Base passed another milestone Friday on the road to closure. Roaring engines and a tip of the wings marked the departure of the last Air Force aircraft from the base, a KC-135 Stratotanker.

With more than 30,000 hours of labor invested in it, this jet, unspooled by airworthiness, left for the hangars of Pensacola Aerospace, Incorporated in Birmingham, Ala., where it will undergo the remaining maintenance work necessary to put it back in service as an aerial refueler.

For the mechanics and members of the aircraft management team, working on the last aircraft on base presented unique challenges.

"The mechanics and the whole aircraft team really pulled together to get this plane out of here," said Joyce Washington, a materials analyst with the Aircraft Management Division. "People really went above and beyond on this project, especially the mechanics. People came in on their days off and they worked a lot of tough hours. They knew what needed to be done and they made it happen."

As the Aircraft Management Division downsized, fewer people and fewer resources were available to complete the project. But doing more with less has become a way of life in the Air Force and success was the only option. Working at one point with about 700 personnel, aircraft management was down to about 20 Friday.

"We've worked on about 44 different kinds of airplanes at McClellan since we opened for business nearly 60 years ago," said Gerry Hampton, director of the Aircraft Management Division. "The departure of this plane was bittersweet. It was sad to see the end of an era, but I'm very proud of the people who made this effort work. It was tough to get the last airplane out as the support structure was going away. These people did a fantastic job getting this plane out with limited resources."

**OVERALL COMMENTS:** An overall weak category; didn't capture the news, the summary of the news or even the appropriate angle. Way too many quotes; be more selective. Not enough description. Too often they took a boring story and had it live up to its potential.

First Place: 1<sup>st</sup> Lt. Robert Firman, McClellan AFB, Calif.

❑ **Judge 1:** Quotes worked well in this piece. Don't forget the little guys that made all this happen. Tight writing. Good use of quotes.

❑ **Judge 2:** Liked the writing, much stronger than the rest of the batch; captured the importance of the event.

## Information team averts 'Love Bug' virus damage

- by Chris Zerkow
- When the "love bug" hit, Robins' digital assistants were where to find it. They sprang into action and squelched the pest — a year ago — before it had a chance to spread. And Robins' assistants were able to alert users by email first thing in the morning, which also contributed to the low infection rate.
- Attacher: Poulson Cops Up**  
About 40 to 50 infected machines got into the Robins' system, says systems engineer Tom Poulson. The infection first running software under Windows 3.11, but it quickly spread to other operating systems.
- On Monday network problems occurred because of a virus that had infected a piece of network equipment and caused some network instances to freeze. The network was restricted to e-mail, the network and restricted user operations. The Connecticut State Police took control of the equipment, and by Wednesday the network was back to normal.
- Love Bug Act Like a Virus**  
The love bug is a self-imposed virus that spreads through e-mail like a chain letter. It can be removed from a Microsoft Outlook e-mail application, the virus triggers an alert to e-mail to everyone in the victim's personal address book. The virus also attacks file ".vst" extensions, which are usually protected by password.
- "The information assurance team first learned of the virus shortly after 7 a.m. on Monday," says Poulson. Robins' e-mail address book was already programmed to alert users on the network to get out to investigate the problem.
- "As the alert was working, we were alerted by the virus another," Litley said. "It realized in under a minute we were dealing with it. It was confirmed."
- Robins' first e-mail alert, which was sent to the list, to read the manager's reply letter. Minutes later, the virus sent out e-mail messages with subject line "FLOWER" from contacting Robins. Five minutes after the first e-mail, the virus sent out e-mail messages. It had sent out nearly 4,000 messages with the infected subject line from Robins' list.
- According to reports received Monday, the virus was removed from the system after the e-mail within the first several hours.
- See LOVE BUG, Page 7**

## Continued from Page 1

minutes of the attack. The block caught and deleted some 30,000 messages by late Monday, and the number was expected to climb. Meanwhile, about a dozen other Air Force bases wanted information from the Rubins office on how it managed to keep the system operational.

"When Melissa struck, we recognized its potential as a nerve-wreck killer. We protected ourselves accordingly, and it paid off big time," Lindsey said. "It's another lesson from one to another."

Members of the Utah Compliance Inspection Team whose visit to Robins coincided with the virus outbreak were in the Information Assurance Office later the day of the outbreak and were able to observe the incident.

One of our most valuable virus fighting components, Litley said, is our users. Informed users who recognize and report suspicious e-mails can give the virus fighters a jump on problems.

**First Place: Chris Zdrakas, Robins AFB, Ga**

## Cover stories

**Baby Hannah  
has proven  
to be a  
"dream come  
true"**



They're just the beginning of the adoption process, which will involve a lot of paperwork and other time-consuming steps. But the good news is that the adoption process is a lot less complicated than it used to be. And the bad news is that it's a lot more complicated than it used to be. The adoption process is a lot more complicated than it used to be. And the bad news is that it's a lot more complicated than it used to be.

**More objective**

The above are all just a few examples of the many ways in which the use of the word "recovery" has been abused in the mental health field. The term has been used for a wide range of non-specific and largely ignored factors. These include, but are not limited to, the following:

- **Medication:** Many people have experienced a sense of improvement in their mood and from their symptoms as a result of medication, but this does not constitute recovery. It is important to note that medication is not a cure and that the effects of medication are often temporary and can be reversed.
- **Supportive services:** Many people have experienced a sense of improvement in their mood and from their symptoms as a result of supportive services, but this does not constitute recovery. It is important to note that supportive services are not a cure and that the effects of supportive services are often temporary and can be reversed.
- **Self-help:** Many people have experienced a sense of improvement in their mood and from their symptoms as a result of self-help, but this does not constitute recovery. It is important to note that self-help is not a cure and that the effects of self-help are often temporary and can be reversed.

图 1 研究区位置图

OVERALL COMMENTS: Back to very weak in the show Vs the tell. No emotion. Too many show and no tell (what color is his hair, what are the gestures; what are the smells, let individual describe why they like to do something.) Next to news one of the weakest categories. No emotion, don't connect with the people you're writing about. Too clinical. Two and three sentences to get a point across, if you tighten up that, then you have room for more colorful writing (choose the salient details). Got to connect your readers with the person who you're writing about; no connection for your readers. The connection starts in the lead. Look for a unique approach. After you write the story, come back after a day to redo the lead based on the body. Ask why 6 times to get to the deeper meaning of the story...this will get you to the heart of the story. All writers show great potential...a glimmer of brilliance...but need more consistency. Be careful about picking stories that meet judging criteria. Some entries were follow-up stories.

- ❑ **Judge 1:** Good stuff.

- ❑ **Judge 3:** Great descriptive language helped us to picture what he was writing about. Certain things were not clear in the story, forcing readers to go back to check.

- ❑ **Judge 3:** Great descriptive language helped us to picture what he was writing about. Certain things were not clear in the story, forcing readers to go back to check.



## Second Place: Master Sgt. Darrell Lewis, Tinker AFB, Okla.

- ❑ **Judge 1:** Got me involved with this guy. I walked away thinking about this person. A little more detail on the individual's job. Strong ending.
- ❑ **Judge 2:** What preceded this story?
- ❑ **Judge 3:** Strong ending but wrong focus. Good Quotes from someone other than the individual. A different voice.

# Survivor gives back to Combined Federal Campaign

Master Sgt. Darrell Lewis  
Editor

Almost six years after his life changed forever, Trent Givens continues to fight back as well as help others with their own struggles. The Tinker employee of almost 11 years wins daily battles against personal and professional challenges as he recovers from two brain tumors that struck him in 1995 and 1997.

For the last year and a half, Givens has been a lead avionics engineer with the Oklahoma City Air Logistics Center Aircraft Directorate's B-2 System Support Manager Division. The job was a promotion for his work in the base's Cruise Missile Product Group division. Working on the B-2 Spirit stealth bomber, Givens diagnoses electronics anomalies, gives fellow engineers technical direction and relays guidance to those working with the aircraft based at Whiteman Air Force Base, Mo.

During this year's Combined Federal Campaign, Givens volunteered to work for three weeks in Bldg. 3001 tallying pledges from base employees for the multi-organization fundraiser for charitable causes. "Actually, until my first tumor," Givens said, "I gave minimally to CFC — I never really thought about it. Then after the first tumor happened, my wife and I decided, 'Well, maybe we oughta be giving.' This year I thought I could give a little more, kinda the next step. Give a little bit more back to the community."

Responding to the advertisement for CFC volunteers, Givens reported to a small office just inside the huge industrial area of Bldg. 3001 to help track base efforts toward its \$1.03 million goal. Through the duty, Givens said he has seen firsthand the amount of generosity and caring among Team Tinker. "It just overwhelms me. It is incredible how these folks give out here."

"He's absolutely an outstanding young man," said base CFC manager Laverne Shaw whose primary job is with the OC-ALC Aircraft Management Directorate. After noticing that Givens reported about 30 minutes earlier than most of the volunteers to the CFC office she headed, she light-heartedly mentioned his punctuality. "He said it's a little difficult for him to find the place," Shaw said. "So, I kind of looked at him [questioningly] and he said 'Well, you know, since I had the brain tumor and they removed part of my right lobe, it's not always easy for me to find my way.'"

"It's a lot of coping day to day," he said. "Learning new things is difficult because it sometimes doesn't stick the first time, or the second or the third. So I struggle with it; just trying to learn the way B-2 does things differently from the way the guys in cruise missiles did things."

Givens said the reason he is able to remain productive despite his history with brain tumors is that he has learned to develop work processes with the help of flow charts. "I now know the steps. I know I can follow the steps and use checklists to make sure I haven't overlooked something." But the struggles are still something he deals with and some tasks don't "come naturally for whatever reason."

Givens said he also depends more on his writings to develop thought processes. "Before, my memory was such that I could write down just a note or two and it would be enough to lead me down that path to find that memory. Well, now, I really have to write down most of what was said in order to really remember."

Shaw said she has seen the pride Givens has sensed from his involvement with CFC. "His outlook is so beautiful — not feeling sorry for himself. He's a joy to know. You get pretty close when you work in [the CFC office] as many hours as we do. I feel like I've gained a lot from just getting in work with Trent; and the rest of the people feel the same way."

It was while he was wrapping up a degree in mechanical engineering at the University of Missouri at Rolla, a small engineering branch of the school, that Givens was recruited as a federal employee with the Air Force.

Givens would eventually find himself working with cruise missiles at Tinker. It was during a temporary duty trip to Boeing Aerospace's Seattle, Wash., plant in January 1995 when out of nowhere, he said, an abrupt grand mal seizure became the first indication that something was terribly wrong. A magnetic resonance

image showed a brain tumor. "They found a tumor the size of a small lime growing in my right temporal lobe," Givens said. "They cut it out along with quite a bit of my lobe; I've been recovering every since."

Givens' wife (who had left Tinker the year before to raise their newborn son), his father-in-law (who had just retired from Tinker), parents and sister had flown to Seattle when he was hospitalized. "I didn't get the news until after I woke up," Givens said. "But because of the anti-seizure medication I was on, plus just the trauma of the surgery, I thought it was a dream."

"Fortunately, I had an allergic reaction to the medication, so my doctor took me off the medication and it was 'Okay, this is happening.' Finally I accepted that I'd had a brain tumor. But I was like a lot of head injury patients who believe they can do more than they really can."

Givens said he then began forcing himself to learn small routines. Givens said information from a brain tumor agency he now contributes to regularly through the CFC was particularly insightful, allowing him to deal with his illness in a rational manner. "That really makes a difference" to someone undergoing such a traumatic experience, he said.

Before he learned about the advances made regarding his illness, Givens said he had thought "... brain and tumor equaled dead. I had not heard of anyone surviving. So, [the agencies] were there to give this hope to me that now there is life after a brain tumor. I started down that path there at the hospital."

Ten months after his first seizure, Givens was returning early from another TDY. "At the time I was helping with our youth at our church, over at our youth building, messing around, playing games. I had a [second] seizure right there. So I had to wait another year [to get a driver's license]." Carpooling friends who also worked at the base gave him rides.

But, soon another MRI would find a second tumor, about the size of the end of a thumb, growing in basically the same location as the first.

"The doctor called me on New Year's Eve of '97, after I got home from work," Givens said. "He said 'I can't keep this from you, but I don't really want to tell you now ... but the tumor's grown back.'" Givens' second surgery was done in the Oklahoma City area. "It was much less traumatic," he said of the operation. Later, he would endure seven weeks of radiation therapy and nine months of chemotherapy.

It is still a couple of years away before doctors consider Givens cured, he said. "Even after that they'll continue a regular follow-up with an MRI, then they'll get fewer and farther between."

Now part of a local support group affiliated with one of the national agencies, Givens is able to gain support for his own recovery, as well as give hope to new members.

"In addition," Givens said, "we don't let the threat of the tumor recurring control our lives. We added a daughter — my precious baby doll — to our family after my first tumor and before the second. We stay involved in our church. I coach my son's soccer team. We have lots of living yet to do."

<b>First Place:</b>	<b>Steve VanWert, Brooks AFB, Texas</b>
<b>Second Place:</b>	<b>2<sup>nd</sup> Lt. Cristina Gentile, Eglin AFB, Fla.</b>

**First Place: Steve VanWert, Brooks AFB, Texas**

- ❑ **Judge 1:** Liked the message.
- ❑ **Judge 3:** Writing was tight, very descriptive; loved it

**Second Place: 2<sup>nd</sup> Lt. Cristina Gentile, Eglin  
AFB, Fla.**

- ❑ **Judge 1:** Good template for an editorial, but didn't capture me emotionally.
- ❑ **Judge 2:** Well researched; more of a feature; maybe a little preachy.
- ❑ **Judge 3:** Long, took too long to get to the main point

[illegible]

Category J -- Sports Article

First Place:	Lois Walsh, Eglin AFB, Fla.
Second Place:	No winner selected

OVERALL COMMENTS: Think sports feature in the future; not routine coverage; make it more featury; other entries were too weak, too many holes with unanswered questions to warrant any other winners. See comments from feature writing. The winner was the winner because it was a well-written feature. Good quotes that were illustrative. A cut above the other entries.

First Place: Lois Walsh, Eglin AFB, Fla.

Eglin maintainers hook fishing title

by Lois Walsh  
AAC Public Affairs

If you want to hear the fishing tale about the one that got away, don't talk to Jim Wood or Randy Crosta. As the winning team for the Armed Forces Bass Fishing Tournament, they can only tell you about the fish that didn't.

The two specialists from the 16th and 46th Maintenance Squadrons topped a field of 116 teams who competed in the 10<sup>th</sup> annual competition held at Lake Guntersville, Ala.

The tournament, which is open to employees of the Department of Defense and their dependents, is sponsored by Offutt Air Force Base's Outdoor Recreation Flight and rotates annually in locations from Texas to Florida.

The tournament was held over five days, with two days of practice and three days of weigh-ins. Three flights of 35 boats launched out together and weighed in together, after the teams spent at least eight hours on the water.

"We could catch all the fish we wanted, but could only weigh in the top six fish," said Wood. "The heaviest total for the three days was the winner."

Crosta said the key to their success this year was following the seasonal movements of the fish.

"Every year in the springtime fish move to the shallows to spawn, and this year they were affected by severe cold fronts prior to our arrival," Crosta said. "But through the week, the bass moved out of the deeper water to the shallow water once again to spawn, and we followed them there."

While the team split more than \$2,000 in prize money and a traveling trophy, both agree the dollars weren't the driving factor.

"It's more for the bragging rights than the paycheck," said Crosta, as Wood listened, nodding his head.

"We got to go somewhere together and just have fun with other people we've met through these tournaments," Wood agreed.

Crosta said that being affiliated with the military doesn't hurt, either.

"We have that common bond and we all love to fish," he said. "You're destined to have a good time."

The team doesn't plan to rest on its laurels, though. Although they already hold title to two firsts, one second, one third and a big or heaviest fish win, they plan to stay on the competition trail that

leads to tournaments in Kentucky, Texas and Tennessee. When not on the road, they will fish any chance they get.

"We're fishing buddies—we're like two brothers," Wood said.

"It's the desire to fish, the competition, and representing Eglin, plus we have the most fun of anyone there," he added.

So, if you need to get in touch with the number one-ranked team in the Armed Forces, you'll know where they are—they're gone fishing.

Category K – Series

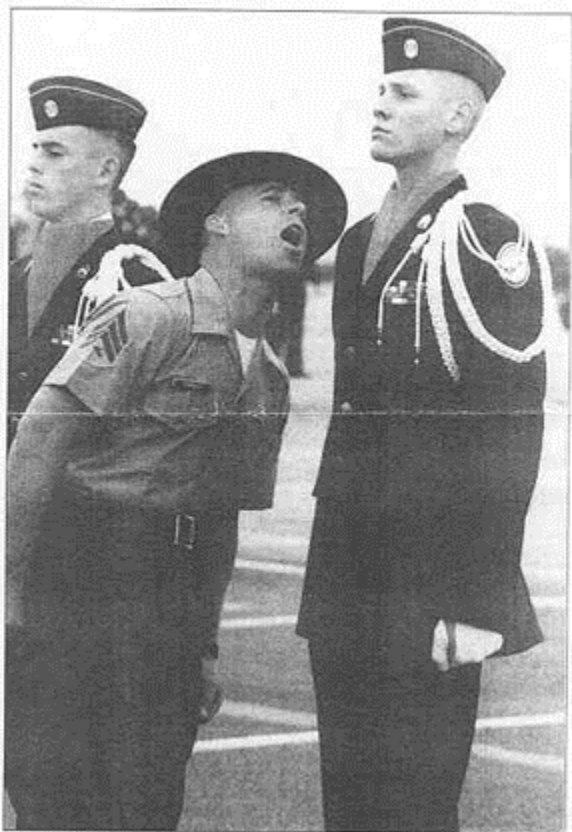
First Place:	No winner selected
Second Place:	No winner selected



## Category L -- Single or Stand-Alone Photograph

**First Place: Master Sgt. Tim Helton, Los Angeles AFB, Calif.**

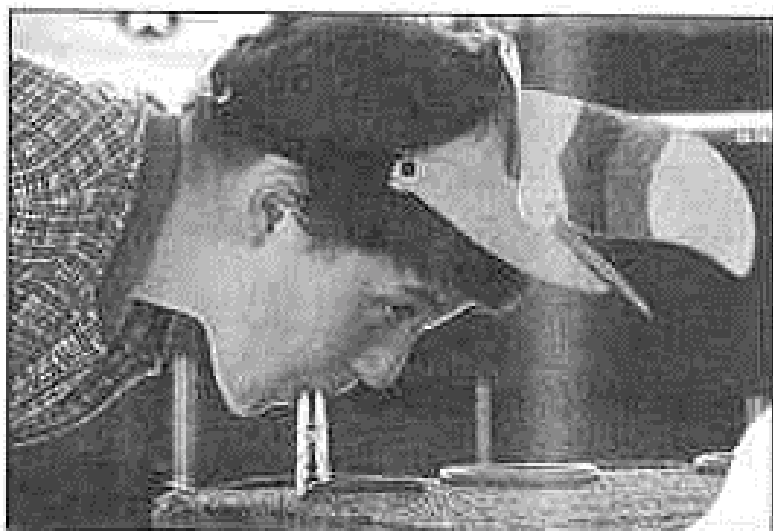
**Second Place: Sandra Kosmatin, McClellan AFB, Calif.**



OVERALL COMMENTS: Need more action, less static photos. Some entries did not have cutlines and that's one of the criteria.

**First Place: Master Sgt. Tim Helton, Los Angeles AFB, Calif.**

- ❑ **Judge 1:** It had emotion; nice composition.
- ❑ **Judge 2:** Knew what the story was even without the cutline. Nice cropping.



U.S. Air Force photo by Sandra Kosmatin

Russell Laramie, son of Tech. Sgt. Montana and Kerry Laramie, 652nd Combat Logistics Support Squadron, uses a clothes pin to pick up a ring during a race against a parrot. The parrot won!

**Second Place: Sandra Kosmatin, McClellan AFB, Calif.**

- ❑ **Judge 1:** Unusual; focus with center of attention.
- ❑ **Judge 2:** Not static, action; pulled into the picture.
- ❑ **Judge 3:** Excellent composition; photos had impact.

First Place:	SrA. Dean Witt, Edwards AFB, Calif.
Second Place:	Capt. Victoria Keegan, Wright-Patterson AFB, Ohio

## Edwards firefighters blaze through regional finals

General comments: Good layout, tight cropping, good variety, and good clear and direct story dominant photo.

General comments: Way too much of the same thing at the same size; select fewer strong ones. More variety needed between close up, medium, panoramic, etc.



## Category M2 -- Photojournalism (Photo Story)

**First Place: Tech. Sgt. Christopher Ball, Edwards AFB, Calif.**

**Second Place: SrA. Marnee Carlson, Eglin AFB, Fla.**



### First Place Tech. Sgt. Christopher Ball, Edwards AFB, Calif.

- ❑ **Judge 1:** It told a story.
- ❑ **Judge 2:** Variety of shots, layout was wonderful; only drawback was misplaced cutline.
- ❑ **Judge 3:** Good variety and composition.

### Second Place: SrA. Marnee Carlson, Eglin AFB, Fla.

- ❑ **Judge 1:** The good photos were very very good. Made a connection between human and horse. Effort was seen. Little variety, need more closeups, long range, etc.
- ❑ **Judge 3:** Good photos





Category N -- Art/Graphics in Support of a Publication

First Place:	No winner selected
Second Place:	No winner selected

OVERALL COMMENTS: At least we have some submissions! Graphics were lacking throughout all publications. Scan online graphics sites for ideas. Look to USA today for ideas. Several entries didn't have supporting story as required...weren't judged. Supposed to be easily understood and these weren't.

Category O -- Contribution by Contractor/Stringer (Writer)

First Place:	Mary Galbraith, Hill AFB, Utah
Second Place:	Karen Edge, Kelly AFB, Texas

OVERALL COMMENTS: A number of these writers had stronger submissions than the other categories. They all must remember context...must have background paragraphs or sentences. Need tie backs. Context is critical. Strive to have a news peg high in the story. Some were buried in the bottom third of the story.

First Place: Mary Galbraith, Hill AFB, Utah

- Judge 1: Tackled an issue; did it in a way where the message is clear without being heavy handed. Hardest hitting article of all entries. Willingness to go beyond the superficial goody-goody story.
- Judge 2: Presented info for families to use, brought in full readership. Acknowledged problems, good PR. Very strong.
- Judge 3: Detected a number of AP style mistakes and usage mistakes (would have been a higher score). Very thoroughly reported, but should have included the names of the convicted. I wanted more.

Designer methamphetamine use results in jail time

By Mary Galbraith  
Hill Air Force Base

Just when the military was celebrating the 50th anniversary of the G.I. Bill, a designer at Hill Air Force Base was sentenced to jail for 180 days for using methamphetamine.

The designer, who was a member of the Hill Air Force Base community, was sentenced to jail for 180 days for using methamphetamine. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community. The designer was a member of the Hill Air Force Base community.

- ❑ **Judge 1:** I admired the airman. A good personality feature but it needed some work. Missing some key info. One hell of a personality feature. Read your story through a reader's eyes. Ask what your readers would want to know.
- ❑ **Judge 2:** Great story, but A lot of missing info...how did the accident happen, what are the rules...never says or describes what he's up against.
- ❑ **Judge 3:** The lead made me grimace. An amazing tale that needed a much stronger lead. How it happened was a major hole.

[illegible]



## Second Place: Joe Piccorossi, Eglin AFB, Fla.

- ❑ **Judge 1:** Look of concentration was key. When you look away you still see the face.
- ❑ **Judge 2:** Dramatic and innovative; showed the photog was thinking.
- ❑ **Judge 3:** Nice use of color.

## Category Q -- Outstanding Flagship Publication

First Place: No entries

## Category R -- Web-based Publication

First Place: Tinker AFB, Okla.

(Primary Contributors: Ron Mullan; April McDonald)

Second Place: Kirtland AFB, N.M.

(Primary contributor: Terry Walker)

Hanscom AFB, Mass.

(Primary contributors: MSgt. Daryl Mayer; SrA. Theresa Ide)

First Place: [Tinker AFB](#), Okla.



*Public  
Affairs*



oklahoma city air national guard

---

# Tinker Take Off

May 11, 2001

Media Relations	<ul style="list-style-type: none"> <li>• Answers to work force problem on the way</li> <li>Have working with technology centers.</li> </ul>
Biographies and Fact Sheets	
Speaker's Information	<ul style="list-style-type: none"> <li>• Digital technology news division</li> <li>High, timely Division will on way to popular movie content.</li> </ul>
Security and Policy Review	
Hometown News Releases	
Environmental	



Air Force photo by Mike McPherson



Second Place: [Kirtland AFB, N.M.](#) & [Hanscom AFB, Mass.](#)



## Category S -- Outstanding New Writer

First Place: Amn. Emily Butali, Eglin AFB, Fla.

Second Place: No winner selected

OVERALL COMMENTS: A lot more relaxed in writing. An ease of writing. Writes in nice bite sized pieces. Choose quotes carefully though. News pegs are low, bring them up.

First Place: Amn. Emily Butali, Eglin AFB, Fla.

### Face Off

## In-line hockey takes Eglin youth by storm

By Airman Emily Butali  
STAFF WRITER

It's action packed, fast paced, challenging and has taken the Eglin youth by storm. It's in-line hockey and it may be here to stay.

For two years, volunteer hockey coach Edward C. Delisle, who works at the Eglin air traffic control tower, has been sweating it out every Thursday with the children at the Eglin Youth Center.

The Pontiac, Mich., native said he was born and raised in the home of hockey.

"I grew up playing hockey," Delisle said. "I wanted to bring hockey to Florida; and when I found out that the youth center was looking for a coach, I was happy to volunteer."

As opposed to ice hockey, which has a total of six players, in-line hockey has five players on each team, including the goalie. The players consist of the defense, right wing, left wing, center and the goalie.

In-line hockey is played on a flat surface, clear of debris and obstacles. Players can be anywhere they want on the court. Kicking the puck is legal but a goal may not be scored in this manner. Games consist of 22 minutes of playing time with 15-minute breaks. A face off starts each half and plays until one team scores or the puck leaves the play.

However, Delisle bends the rules in his games. Pick-up hockey is what he calls his game. This is where teams are made up before they play against each other, explained Delisle. The children, 7 to 12 years old, play in five-

minute shifts before the players swap.

"I have 20 children who would like to play and to give them all a chance we have to swap," Delisle said.

Not only is Delisle the coach, but he is also the referee of the game. When the going gets tough, the tough do not get going in Delisle's team. Delisle does not allow the children to perform slap shots or any roughness.

"I call penalty shots, and I can also decide to stop the game," he said. "I teach the children how to play a clean, fun game."

Standing in the path of a hard rubber disc charging at 130 kilometers an hour may be a recipe for disaster unless one is well protected. To ensure the safety of the children, the youth center provides full gear for the players.

To gear up, a helmet, masks, shin guards, elbow and shoulder pads, skates, hockey stick, gloves among other clothing are required.

"All the gear may cost up to \$600," Delisle said. "Fortunately, the Eglin Youth Center provides it."

Kathy Thompson, a youth center volunteer, helps the children to get in and out of the gear.

"She has been a great help," Delisle said. "It can take up to half an hour to get all the children dressed."

While this may seem to be a hectic end to his day, Delisle said the reward of his efforts is ensuring the children have good, clean fun.

"I do it for the kids, they absolutely love it," he concluded.

In-line hockey ends Thursday and begins again next summer. For more information, call the Eglin Youth Center at (850) 882-5212.

## Banquet to recognize honor guard

By Airman Emily Butali

STAFF WRITER

For Ruth B. Wilson, the presentation of the U.S. flag at her husband's funeral was a courtesy that will never be forgotten.

Wilson's husband, Senior Master Sgt. (ret.) Warren F. Wilson, was in the Air Force for 21 years and worked as a weapons maintenance superintendent with the 48th Maintenance Squadron here. He was born in 1921 and was buried in June at the Freeport Cemetery.

"Thank you for serving," she wrote in a letter of gratitude to the Eglin Honor Guard members who served on her husband's funeral detail. She commended their performance. "You are a credit to your squadron as well as the United States Air Force. I shall always remember the beautiful service and be ever grateful," she added.

Eglin Honor Guard members have lit a candle that will forever burn in the memories of veterans' widows and family members. To show appreciation to those who serve and to make those final memories lasting ones, Eglin's Top 3 is sponsoring the fourth annual Honor Guard Banquet at the Eglin Enlisted Club Nov. 17.

According to Senior Master Sgt. Thomas Huberty, banquet committee chairman, 53 honor guard members will be recognized for their outstanding efforts in on and off-base activities.

The Eglin Honor Guard is composed of volunteers from all squadrons on Eglin. Their primary duty is to provide military funeral honors for deceased active-duty and retired servicemembers, and veterans.

Other ceremonies that they perform include

traditional ceremonial honors at military functions such as change-of-command ceremonies, retirement ceremonies and parades.

"The banquet is a good chance for the Eglin community to show the honor guard that we back their efforts," Huberty said.

Some featured events during the ceremony include a POW/MIA table presentation, a 53rd Wing video presentation on what the honor guard did throughout the year and an awards presentation to the outstanding members of the honor guard.

The awards include the esprit de corps award, which is given to the person who keeps the flight morale high throughout the year, and the Sierra Hotel award, which is issued to the member who has the most points from detail participation.

"Although awards will be given to some members of the honor guard, it is important for people to realize that all the members worked hard and that they all deserve to be recognized," Huberty said.

Staff Sgt. Jason Sabin, noncommissioned officer in charge of the Eglin Honor Guard, agreed.

"Many people do not realize how hard it is for the honor guard members to stand in extreme cold or heat for long hours without moving," Sabin said. "The Honor Guard Banquet is a Team Eglin event that shows how the Air Force takes care of its own."

The banquet begins at 6 p.m. and is a semi-formal event, which includes a buffet-style meal. The guest speaker for the event is 12th Chief Master Sgt. of the Air Force (ret.) Eric Benken. Tickets cost \$15 per person and can be purchased through unit first sergeants.

## Category T -- Air Force Print Journalist of the Year

First Place: Sue Baker, Wright-Patterson AFB, Ohio

Second Place: Ray Johnson, Edwards AFB, Calif.

OVERALL COMMENTS: Send strongest stories...you need depth...some stories were very routine which weakened the package. A year's time gives you lots of opportunity. The stories with the most impact crossed military/civilian lines...easy to understand. Think about your job description being a translator...translate a foreign language (military) into vanilla English. Overall, would like to see more of the AF writers involve their readers with emotion, description/visualization. Entails strong facts, strong observations, and daring questions. Willing to ask the tough questions. Multiple source stories will always be better than a single source story. As a test to see whether a story flows well and to see if its free of bureaucratic lingo, read it aloud. If you stumble, your readers will too.

## 'Highest step' opens up space

By Sue Baker  
AFSC Public Affairs

On Aug. 18, 1983, Joe Kilgus stepped out of a high-altitude balloon gondola at 100,000 feet and made a parachute landing.

"I stepped at the edge of the door, looked out, and said 'oh my!'" Kilgus said. "Then I stepped out -- and for the next four minutes and 27 seconds, I floated in the air."

Kilgus, who was an Air Force photo instrument technician assigned to the technical photographic division of the former Aeronautical Systems Division here, did all alone work on the X-15. He flew 14 flights, including modifications of several cameras on-board Kilgus's gondola. In his own words, he described the jumps.

At the time, the maximum safe bailout level was about 35,000 feet, explained Arnold, whose group was trying to determine the effects of high-altitude oxygen on the human body and develop a parachute for the 58-75 pilots flying at 100,000 feet -- as well as those future, space-bound pilots approaching 180,000 feet.

In his two previous X-15 jumps -- on Nov. 16 and Dec. 11, 1969 -- Kilgus had reached altitudes of 75,000 and 100,000 feet, respectively. But surviving above 100,000 feet was extremely difficult. At that altitude, if any of his critical parts failed, the effects would be fatal. First, his oxygen would start to bubble, then his skin would puff up in spots, his stomach would, and his eyes would pop out. Eventually, his veins and arteries would rupture in his blood vessel system.

Before then, Kilgus's history, named jumps, the Wright Field engineers spent three years at Holloman, working with the help of the local balloon crew's time on loan -- instrumented -- descent, which they would take on a rack up to 180,000 feet to try different configurations of the main parachute. The chute itself was a variation of the standard Army parachute that manufactured in Dayton.

best design and presented to the next manned stage of flight.

Because the jumps took place at daylight, the team's work started in the dark of night, usually around 10 p.m. Arnold explained. Located 18 miles east of Holloman, the launch site was near Tularosa, N.M., on an old dirt airstrip in the middle of a desert.

On Aug. 18, 1983, as Kilgus stepped out of the gondola, he had a bad cold, and the 100,000-foot, pressure suit, and photographic systems performed all assigned to the site for setup. Technicians marked off more than 1,000 checklists and brought 100 items, approximately, broken only by a personal light, cigarette, or cup of coffee.

At 2 a.m., Kilgus arrived, accompanied by Francis Thompson, who performed the parachute that would bring him home safely, and Arnold, whose team was making last-minute adjustments to the on-board camera.

Wearing a "lumpy" and bumpy bag, Kilgus, then 32 years old, suited up with more than 150 pounds of instruments, pressure, and life-support equipment, with help from the "descent" crew. At about 9 a.m., weighing about 300 pounds, he exited the trailer and was hoisted into the balloon basket holding the

See "Highest step," Page 28

## 'Highest step'

from Page 25

gondola, where he was cranked into a lifting basket that guided the chute.

As Arnold put the pressure on Kilgus, who was floating in the air, he was rescued. "The balloon was located over my head, and I felt a man's hand."

Then, with 15 minutes before 10 a.m., Kilgus and the gondola were driven into the balloon launch area, where the

balloon inflated, 200 feet ball, which about 100 feet, within 10 seconds.

At 5:29 a.m. -- one minute early -- as Duke Gilchrist and other meteorologists at White Sands Missile Range, N.M., deliberated about cutting the mission, the gondola was launched. The gondola crew, led by Kilgus, was in the gondola, and the balloon launch area, where the

balloon inflated, 200 feet ball, which about 100 feet, within 10 seconds.

At 5:29 a.m. -- one minute early -- as Duke Gilchrist and other meteorologists at White Sands Missile Range, N.M., deliberated about cutting the mission, the gondola was launched. The gondola crew, led by Kilgus, was in the gondola, and the balloon launch area, where the

balloon inflated, 200 feet ball, which about 100 feet, within 10 seconds.

At 5:29 a.m. -- one minute early -- as Duke Gilchrist and other meteorologists at White Sands Missile Range, N.M., deliberated about cutting the mission, the gondola was launched. The gondola crew, led by Kilgus, was in the gondola, and the balloon launch area, where the

balloon inflated, 200 feet ball, which about 100 feet, within 10 seconds.

At 5:29 a.m. -- one minute early -- as Duke Gilchrist and other meteorologists at White Sands Missile Range, N.M., deliberated about cutting the mission, the gondola was launched. The gondola crew, led by Kilgus, was in the gondola, and the balloon launch area, where the

Joint helmet-mounted cueing system offers 'look, lock and launch' capability

## Tool provides 'critical edge' for pilots

By Sue Baker  
AFSC Public Affairs

The joint helmet-mounted cueing system, or JHMCS, a revolutionary "look and shoot" tool worn by Air Force and Navy pilots looking airborne and ground-based targets, is giving pilots a "critical edge" in combat.

"JHMCS now offers a pilot the ability to 'look, lock and launch' external target generation, maintain an advantage in the air and on the ground," said system program director Terry Koster of Aeronautical Systems Center JHMCS Program Office. "This all happens because the system 'knows' the pilot's head position, and where he is looking at any given time."

Using a combination of cutting-edge technologies, including cathode ray tube displays to project information directly onto the pilot's vision, JHMCS is a "look-up display on the head," Koster explained. "It's an instantaneous way for pilots to know the status of their aircraft, enemies and weapons that they can 'strap on and plug into' their aircraft."

According to deputy program director David Malone, the advantages of JHMCS are many. "However it really improves a pilot's situational awareness, JHMCS is a major increase in lethality. Malone explained. "A pilot can now simply point his head to detect and launch advanced weapons like the

AIM-9X, high off his sight, shoot a single missile."

Specific benefits of JHMCS include:

- Simultaneous viewing and display of aircraft status and weapon information.
- Display of target locations through global positioning system data, navigation coordinates and weapon points.
- The ability to cue and verify that a pilot is locked on the target (not on his wingman) before deploying current and next-generation missiles.
- A 30-degree field of view with full spherical coverage and daylight operability.
- Easy forehead-aiming pilot's targeting optics with weapon status and video record and playback capability.

JHMCS offers pilots the ultimate kill advantage, Malone said. "Look and shoot technology used to be the stuff of science fiction, but our pilots with one JHMCS technique the way air battles are fought in the 21st century."

A 600 million, Air Force and Navy acquisition category III development program, JHMCS began in fiscal 1986, under direction of the Air Force program executive officer for fighter and bomber programs at Pentagon's recently Maj. Gen. Claude Bohm.

The F-15 and F-16 are current lead platforms for JHMCS development, with F-16 and F-22 following two years from now. Eventually, JHMCS will be deployed on many other aircraft.

This state-of-the-art technology is

being developed by prime contractor Boeing, St. Louis, Mo., and Vision Systems International, San Jose, Calif.

Although the need for JHMCS was recognized in a September 1980 joint operational requirements document developed by the U.S. Air and Navy, the need for this effort was not until the late 1980s. The Air Force and Navy were looking for a way to improve the way air battles are fought in the 21st century.

The F-15 and F-16 are current lead platforms for JHMCS development, with F-16 and F-22 following two years from now. Eventually, JHMCS will be deployed on many other aircraft.

This state-of-the-art technology is

being developed by prime contractor Boeing, St. Louis, Mo., and Vision Systems International, San Jose, Calif.

Although the need for JHMCS was recognized in a September 1980 joint operational requirements document developed by the U.S. Air and Navy, the need for this effort was not until the late 1980s. The Air Force and Navy were looking for a way to improve the way air battles are fought in the 21st century.

The F-15 and F-16 are current lead platforms for JHMCS development, with F-16 and F-22 following two years from now. Eventually, JHMCS will be deployed on many other aircraft.

This state-of-the-art technology is

being developed by prime contractor Boeing, St. Louis, Mo., and Vision Systems International, San Jose, Calif.

Although the need for JHMCS was recognized in a September 1980 joint operational requirements document developed by the U.S. Air and Navy, the need for this effort was not until the late 1980s. The Air Force and Navy were looking for a way to improve the way air battles are fought in the 21st century.

## First Place: Sue Baker, Wright-Patterson AFB, Ohio

□ Judge 2: Strong writer; sentences were too complex. Make more reader friendly.

□ Judge 3: Very descriptive writing; strong writer.

## Edwards office strives to expand space access



By Ray Johnson  
Public Affairs

"Since the Roman Empire, military commanders have dreamed of the high ground needed to dominate the battlefield."

With today's ever-advancing technology, that ancient philosophy remains even more applicable. But instead of rocky slopes, the modern high ground is space. And instead of foot soldiers moving an inch, it's satellites sailing quietly thousands of miles overhead.

Launching a satellite into space, however, is a little more difficult — and expensive — than ordering a locomotive up rail.

Currently, it costs \$10,000 per pound to put satellites into space. The Air Force and Air Space Station, NASA, would like to see that lowered to \$1,000 per pound, and the Air Force and Air Space Station, NASA, would like to see that lowered to \$1,000 per pound, and the Air Force and Air Space Station, NASA, would like to see that lowered to \$1,000 per pound.

### Focus on cost

Consequently, there's going to be tremendous research focused on reducing today's high cost of space travel, said Lt. Col. Don Thompson, director of the Air Force Flight Test Center's Air Force Space Office.

Thompson's 15-man unit, often known as AFSSO, provides Air Force support to NASA and commercial space-to-space flight activities, plus it oversees leading-edge space technology for potential military use.

"One of our major goals is to take the X-33 hypersonic demonstrator, a wedge-shaped, unmanned vehicle, the X-33, and launch it on a planned single-stage-to-orbit reusable launch vehicle, or RLV, called VentureStar — a possible replacement for existing space shuttle systems. Unlike the shuttle, which jiggles back on boosters and back into the air, VentureStar would be self-contained and wouldn't need external power."

The aim of any RLV program is to launch a vehicle that flies, not months to turn around, doesn't need thousands of people to operate, with launch costs that are a hundredth of what they are today, and that, ideally, can be used in a variety of ways.

Ultimately, developing this technology will result in the United States "outpacing our space business and private

in operational advantage to the military mission," said Jeffrey Armstrong, deputy director of AFSSO.

The results, Armstrong added, will be a high ground edge with better resources available to our war-fighters.

Another key to the RLV is being tested at Edwards is the X-34. Also an unmanned vehicle, X-34 is undergoing ground tests here and will be receiving flight tests from 1-1011 aircraft soon. Later, power flights will be held to reach Mach 3 and 250,000 feet.

### Close alliance

The X-33 and X-34 are just two of several experimental vehicles that the Air Force Space Office is experimenting with NASA on during developmental stages. Working in close alliance with NASA's Dryden Flight Research Center, which is located at Edwards, and various contractors, AFSSO also supports X-30, X-31, X-32, X-33, X-34, X-35, X-36, X-37, X-38, X-39, X-40, X-41, X-42, X-43, X-44, X-45, X-46, X-47, X-48, X-49, X-50, X-51, X-52, X-53, X-54, X-55, X-56, X-57, X-58, X-59, X-60, X-61, X-62, X-63, X-64, X-65, X-66, X-67, X-68, X-69, X-70, X-71, X-72, X-73, X-74, X-75, X-76, X-77, X-78, X-79, X-80, X-81, X-82, X-83, X-84, X-85, X-86, X-87, X-88, X-89, X-90, X-91, X-92, X-93, X-94, X-95, X-96, X-97, X-98, X-99, X-100, X-101, X-102, X-103, X-104, X-105, X-106, X-107, X-108, X-109, X-110, X-111, X-112, X-113, X-114, X-115, X-116, X-117, X-118, X-119, X-120, X-121, X-122, X-123, X-124, X-125, X-126, X-127, X-128, X-129, X-130, X-131, X-132, X-133, X-134, X-135, X-136, X-137, X-138, X-139, X-140, X-141, X-142, X-143, X-144, X-145, X-146, X-147, X-148, X-149, X-150, X-151, X-152, X-153, X-154, X-155, X-156, X-157, X-158, X-159, X-160, X-161, X-162, X-163, X-164, X-165, X-166, X-167, X-168, X-169, X-170, X-171, X-172, X-173, X-174, X-175, X-176, X-177, X-178, X-179, X-180, X-181, X-182, X-183, X-184, X-185, X-186, X-187, X-188, X-189, X-190, X-191, X-192, X-193, X-194, X-195, X-196, X-197, X-198, X-199, X-200, X-201, X-202, X-203, X-204, X-205, X-206, X-207, X-208, X-209, X-210, X-211, X-212, X-213, X-214, X-215, X-216, X-217, X-218, X-219, X-220, X-221, X-222, X-223, X-224, X-225, X-226, X-227, X-228, X-229, X-230, X-231, X-232, X-233, X-234, X-235, X-236, X-237, X-238, X-239, X-240, X-241, X-242, X-243, X-244, X-245, X-246, X-247, X-248, X-249, X-250, X-251, X-252, X-253, X-254, X-255, X-256, X-257, X-258, X-259, X-260, X-261, X-262, X-263, X-264, X-265, X-266, X-267, X-268, X-269, X-270, X-271, X-272, X-273, X-274, X-275, X-276, X-277, X-278, X-279, X-280, X-281, X-282, X-283, X-284, X-285, X-286, X-287, X-288, X-289, X-290, X-291, X-292, X-293, X-294, X-295, X-296, X-297, X-298, X-299, X-300, X-301, X-302, X-303, X-304, X-305, X-306, X-307, X-308, X-309, X-310, X-311, X-312, X-313, X-314, X-315, X-316, X-317, X-318, X-319, X-320, X-321, X-322, X-323, X-324, X-325, X-326, X-327, X-328, X-329, X-330, X-331, X-332, X-333, X-334, X-335, X-336, X-337, X-338, X-339, X-340, X-341, X-342, X-343, X-344, X-345, X-346, X-347, X-348, X-349, X-350, X-351, X-352, X-353, X-354, X-355, X-356, X-357, X-358, X-359, X-360, X-361, X-362, X-363, X-364, X-365, X-366, X-367, X-368, X-369, X-370, X-371, X-372, X-373, X-374, X-375, X-376, X-377, X-378, X-379, X-380, X-381, X-382, X-383, X-384, X-385, X-386, X-387, X-388, X-389, X-390, X-391, X-392, X-393, X-394, X-395, X-396, X-397, X-398, X-399, X-400, X-401, X-402, X-403, X-404, X-405, X-406, X-407, X-408, X-409, X-410, X-411, X-412, X-413, X-414, X-415, X-416, X-417, X-418, X-419, X-420, X-421, X-422, X-423, X-424, X-425, X-426, X-427, X-428, X-429, X-430, X-431, X-432, X-433, X-434, X-435, X-436, X-437, X-438, X-439, X-440, X-441, X-442, X-443, X-444, X-445, X-446, X-447, X-448, X-449, X-450, X-451, X-452, X-453, X-454, X-455, X-456, X-457, X-458, X-459, X-460, X-461, X-462, X-463, X-464, X-465, X-466, X-467, X-468, X-469, X-470, X-471, X-472, X-473, X-474, X-475, X-476, X-477, X-478, X-479, X-480, X-481, X-482, X-483, X-484, X-485, X-486, X-487, X-488, X-489, X-490, X-491, X-492, X-493, X-494, X-495, X-496, X-497, X-498, X-499, X-500, X-501, X-502, X-503, X-504, X-505, X-506, X-507, X-508, X-509, X-510, X-511, X-512, X-513, X-514, X-515, X-516, X-517, X-518, X-519, X-520, X-521, X-522, X-523, X-524, X-525, X-526, X-527, X-528, X-529, X-530, X-531, X-532, X-533, X-534, X-535, X-536, X-537, X-538, X-539, X-540, X-541, X-542, X-543, X-544, X-545, X-546, X-547, X-548, X-549, X-550, X-551, X-552, X-553, X-554, X-555, X-556, X-557, X-558, X-559, X-560, X-561, X-562, X-563, X-564, X-565, X-566, X-567, X-568, X-569, X-570, X-571, X-572, X-573, X-574, X-575, X-576, X-577, X-578, X-579, X-580, X-581, X-582, X-583, X-584, X-585, X-586, X-587, X-588, X-589, X-590, X-591, X-592, X-593, X-594, X-595, X-596, X-597, X-598, X-599, X-600, X-601, X-602, X-603, X-604, X-605, X-606, X-607, X-608, X-609, X-610, X-611, X-612, X-613, X-614, X-615, X-616, X-617, X-618, X-619, X-620, X-621, X-622, X-623, X-624, X-625, X-626, X-627, X-628, X-629, X-630, X-631, X-632, X-633, X-634, X-635, X-636, X-637, X-638, X-639, X-640, X-641, X-642, X-643, X-644, X-645, X-646, X-647, X-648, X-649, X-650, X-651, X-652, X-653, X-654, X-655, X-656, X-657, X-658, X-659, X-660, X-661, X-662, X-663, X-664, X-665, X-666, X-667, X-668, X-669, X-670, X-671, X-672, X-673, X-674, X-675, X-676, X-677, X-678, X-679, X-680, X-681, X-682, X-683, X-684, X-685, X-686, X-687, X-688, X-689, X-690, X-691, X-692, X-693, X-694, X-695, X-696, X-697, X-698, X-699, X-700, X-701, X-702, X-703, X-704, X-705, X-706, X-707, X-708, X-709, X-710, X-711, X-712, X-713, X-714, X-715, X-716, X-717, X-718, X-719, X-720, X-721, X-722, X-723, X-724, X-725, X-726, X-727, X-728, X-729, X-730, X-731, X-732, X-733, X-734, X-735, X-736, X-737, X-738, X-739, X-740, X-741, X-742, X-743, X-744, X-745, X-746, X-747, X-748, X-749, X-750, X-751, X-752, X-753, X-754, X-755, X-756, X-757, X-758, X-759, X-760, X-761, X-762, X-763, X-764, X-765, X-766, X-767, X-768, X-769, X-770, X-771, X-772, X-773, X-774, X-775, X-776, X-777, X-778, X-779, X-780, X-781, X-782, X-783, X-784, X-785, X-786, X-787, X-788, X-789, X-790, X-791, X-792, X-793, X-794, X-795, X-796, X-797, X-798, X-799, X-800, X-801, X-802, X-803, X-804, X-805, X-806, X-807, X-808, X-809, X-810, X-811, X-812, X-813, X-814, X-815, X-816, X-817, X-818, X-819, X-820, X-821, X-822, X-823, X-824, X-825, X-826, X-827, X-828, X-829, X-830, X-831, X-832, X-833, X-834, X-835, X-836, X-837, X-838, X-839, X-840, X-841, X-842, X-843, X-844, X-845, X-846, X-847, X-848, X-849, X-850, X-851, X-852, X-853, X-854, X-855, X-856, X-857, X-858, X-859, X-860, X-861, X-862, X-863, X-864, X-865, X-866, X-867, X-868, X-869, X-870, X-871, X-872, X-873, X-874, X-875, X-876, X-877, X-878, X-879, X-880, X-881, X-882, X-883, X-884, X-885, X-886, X-887, X-888, X-889, X-890, X-891, X-892, X-893, X-894, X-895, X-896, X-897, X-898, X-899, X-900, X-901, X-902, X-903, X-904, X-905, X-906, X-907, X-908, X-909, X-910, X-911, X-912, X-913, X-914, X-915, X-916, X-917, X-918, X-919, X-920, X-921, X-922, X-923, X-924, X-925, X-926, X-927, X-928, X-929, X-930, X-931, X-932, X-933, X-934, X-935, X-936, X-937, X-938, X-939, X-940, X-941, X-942, X-943, X-944, X-945, X-946, X-947, X-948, X-949, X-950, X-951, X-952, X-953, X-954, X-955, X-956, X-957, X-958, X-959, X-960, X-961, X-962, X-963, X-964, X-965, X-966, X-967, X-968, X-969, X-970, X-971, X-972, X-973, X-974, X-975, X-976, X-977, X-978, X-979, X-980, X-981, X-982, X-983, X-984, X-985, X-986, X-987, X-988, X-989, X-990, X-991, X-992, X-993, X-994, X-995, X-996, X-997, X-998, X-999, X-1000, X-1001, X-1002, X-1003, X-1004, X-1005, X-1006, X-1007, X-1008, X-1009, X-1010, X-1011, X-1012, X-1013, X-1014, X-1015, X-1016, X-1017, X-1018, X-1019, X-1020, X-1021, X-1022, X-1023, X-1024, X-1025, X-1026, X-1027, X-1028, X-1029, X-1030, X-1031, X-1032, X-1033, X-1034, X-1035, X-1036, X-1037, X-1038, X-1039, X-1040, X-1041, X-1042, X-1043, X-1044, X-1045, X-1046, X-1047, X-1048, X-1049, X-1050, X-1051, X-1052, X-1053, X-1054, X-1055, X-1056, X-1057, X-1058, X-1059, X-1060, X-1061, X-1062, X-1063, X-1064, X-1065, X-1066, X-1067, X-1068, X-1069, X-1070, X-1071, X-1072, X-1073, X-1074, X-1075, X-1076, X-1077, X-1078, X-1079, X-1080, X-1081, X-1082, X-1083, X-1084, X-1085, X-1086, X-1087, X-1088, X-1089, X-1090, X-1091, X-1092, X-1093, X-1094, X-1095, X-1096, X-1097, X-1098, X-1099, X-1100, X-1101, X-1102, X-1103, X-1104, X-1105, X-1106, X-1107, X-1108, X-1109, X-1110, X-1111, X-1112, X-1113, X-1114, X-1115, X-1116, X-1117, X-1118, X-1119, X-1120, X-1121, X-1122, X-1123, X-1124, X-1125, X-1126, X-1127, X-1128, X-1129, X-1130, X-1131, X-1132, X-1133, X-1134, X-1135, X-1136, X-1137, X-1138, X-1139, X-1140, X-1141, X-1142, X-1143, X-1144, X-1145, X-1146, X-1147, X-1148, X-1149, X-1150, X-1151, X-1152, X-1153, X-1154, X-1155, X-1156, X-1157, X-1158, X-1159, X-1160, X-1161, X-1162, X-1163, X-1164, X-1165, X-1166, X-1167, X-1168, X-1169, X-1170, X-1171, X-1172, X-1173, X-1174, X-1175, X-1176, X-1177, X-1178, X-1179, X-1180, X-1181, X-1182, X-1183, X-1184, X-1185, X-1186, X-1187, X-1188, X-1189, X-1190, X-1191, X-1192, X-1193, X-1194, X-1195, X-1196, X-1197, X-1198, X-1199, X-1200, X-1201, X-1202, X-1203, X-1204, X-1205, X-1206, X-1207, X-1208, X-1209, X-1210, X-1211, X-1212, X-1213, X-1214, X-1215, X-1216, X-1217, X-1218, X-1219, X-1220, X-1221, X-1222, X-1223, X-1224, X-1225, X-1226, X-1227, X-1228, X-1229, X-1230, X-1231, X-1232, X-1233, X-1234, X-1235, X-1236, X-1237, X-1238, X-1239, X-1240, X-1241, X-1242, X-1243, X-1244, X-1245, X-1246, X-1247, X-1248, X-1249, X-1250, X-1251, X-1252, X-1253, X-1254, X-1255, X-1256, X-1257, X-1258, X-1259, X-1260, X-1261, X-1262, X-1263, X-1264, X-1265, X-1266, X-1267, X-1268, X-1269, X-1270, X-1271, X-1272, X-1273, X-1274, X-1275, X-1276, X-1277, X-1278, X-1279, X-1280, X-1281, X-1282, X-1283, X-1284, X-1285, X-1286, X-1287, X-1288, X-1289, X-1290, X-1291, X-1292, X-1293, X-1294, X-1295, X-1296, X-1297, X-1298, X-1299, X-1300, X-1301, X-1302, X-1303, X-1304, X-1305, X-1306, X-1307, X-1308, X-1309, X-1310, X-1311, X-1312, X-1313, X-1314, X-1315, X-1316, X-1317, X-1318, X-1319, X-1320, X-1321, X-1322, X-1323, X-1324, X-1325, X-1326, X-1327, X-1328, X-1329, X-1330, X-1331, X-1332, X-1333, X-1334, X-1335, X-1336, X-1337, X-1338, X-1339, X-1340, X-1341, X-1342, X-1343, X-1344, X-1345, X-1346, X-1347, X-1348, X-1349, X-1350, X-1351, X-1352, X-1353, X-1354, X-1355, X-1356, X-1357, X-1358, X-1359, X-1360, X-1361, X-1362, X-1363, X-1364, X-1365, X-1366, X-1367, X-1368, X-1369, X-1370, X-1371, X-1372, X-1373, X-1374, X-1375, X-1376, X-1377, X-1378, X-1379, X-1380, X-1381, X-1382, X-1383, X-1384, X-1385, X-1386, X-1387, X-1388, X-1389, X-1390, X-1391, X-1392, X-1393, X-1394, X-1395, X-1396, X-1397, X-1398, X-1399, X-1400, X-1401, X-1402, X-1403, X-1404, X-1405, X-1406, X-1407, X-1408, X-1409, X-1410, X-1411, X-1412, X-1413, X-1414, X-1415, X-1416, X-1417, X-1418, X-1419, X-1420, X-1421, X-1422, X-1423, X-1424, X-1425, X-1426, X-1427, X-1428, X-1429, X-1430, X-1431, X-1432, X-1433, X-1434, X-1435, X-1436, X-1437, X-1438, X-1439, X-1440, X-1441, X-1442, X-1443, X-1444, X-1445, X-1446, X-1447, X-1448, X-1449, X-1450, X-1451, X-1452, X-1453, X-1454, X-1455, X-1456, X-1457, X-1458, X-1459, X-1460, X-1461, X-1462, X-1463, X-1464, X-1465, X-1466, X-1467, X-1468, X-1469, X-1470, X-1471, X-1472, X-1473, X-1474, X-1475, X-1476, X-1477, X-1478, X-1479, X-1480, X-1481, X-1482, X-1483, X-1484, X-1485, X-1486, X-1487, X-1488, X-1489, X-1490, X-1491, X-1492, X-1493, X-1494, X-1495, X-1496, X-1497, X-1498, X-1499, X-1500, X-1501, X-1502, X-1503, X-1504, X-1505, X-1506, X-1507, X-1508, X-1509, X-1510, X-1511, X-1512, X-1513, X-1514, X-1515, X-1516, X-1517, X-1518, X-1519, X-1520, X-1521, X-1522, X-1523, X-1524, X-1525, X-1526, X-1527, X-1528, X-1529, X-1530, X-1531, X-1532, X-1533, X-1534, X-1535, X-1536, X-1537, X-1538, X-1539, X-1540, X-1541, X-1542, X-1543, X-1544, X-1545, X-1546, X-1547, X-1548, X-1549, X-1550, X-1551, X-1552, X-1553, X-1554, X-1555, X-1556, X-1557, X-1558, X-1559, X-1560, X-1561, X-1562, X-1563, X-1564, X-1565, X-1566, X-1567, X-1568, X-1569, X-1570, X-1571, X-1572, X-1573, X-1574, X-1575, X-1576, X-1577, X-1578, X-1579, X-1580, X-1581, X-1582, X-1583, X-1584, X-1585, X-1586, X-1587, X-1588, X-1589, X-1590, X-1591, X-1592, X-1593, X-1594, X-1595, X-1596, X-1597, X-1598, X-1599, X-1600, X-1601, X-1602, X-1603, X-1604, X-1605, X-1606, X-1607, X-1608, X-1609, X-1610, X-1611, X-1612, X-1613, X-1614, X-1615, X-1616, X-1617, X-1618, X-1619, X-1620, X-1621, X-1622, X-1623, X-1624, X-1625, X-1626, X-1627, X-1628, X-1629, X-1630, X-1631, X-1632, X-1633, X-1634, X-1635, X-1636, X-1637, X-1638, X-1639, X-1640, X-1641, X-1642, X-1643, X-1644, X-1645, X-1646, X-1647, X-1648, X-1649, X-1650, X-1651, X-1652, X-1653, X-1654, X-1655, X-1656, X-1657, X-1658, X-1659, X-1660, X-1661, X-1662, X-1663, X-1664, X-1665, X-1666, X-1667, X-1668, X-1669, X-1670, X-1671, X-1672, X-1673, X-1674, X-1675, X-1676, X-1677, X-1678, X-1679, X-1680, X-1681, X-1682, X-1683, X-1684, X-1685, X-1686, X-1687, X-1688, X-1689, X-1690, X-1691, X-1692, X-1693, X-1694, X-1695, X-1696, X-1697, X-1698, X-1699, X-1700, X-1701, X-1702, X-1703, X-1704, X-1705, X-1706, X-1707, X-1708, X-1709, X-1710, X-1711, X-1712, X-1713, X-1714, X-1715, X-1716, X-1717, X-1718, X-1719, X-1720, X-1721, X-1722, X-1723, X-1724, X-1725, X-1726, X-1727, X-1728, X-1729, X-1730, X-1731, X-1732, X-1733, X-1734, X-1735, X-1736, X-1737, X-1738, X-1739, X-1740, X-1741, X-1742, X-1743, X-1744, X-1745, X-1746, X-1747, X-1748, X-1749, X-1750, X-1751, X-1752, X-1753, X-1754, X-1755, X-1756, X-1757, X-1758, X-1759, X-1760, X-1761, X-1762, X-1763, X